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(54) Title: PROCESS AND APPARATUS FOR THE PRODUCTION OF USEFUL PRODUCTS FROM CARBONACEOUS FEEDSTOCK

(57) Abstract: A carbonaceous feedstock to alcohol conversion process in which carbon dioxide and a portion of the hydrogen produced are removed from the syngas stream issuing from a feedstock reformer, to yield a reduced hydrogen, carbon monoxide and methane syngas stream. The hydrogen and the carbon dioxide are passed through a Fischer Tropsch reactor which is catalyzed to favor the production of methanol. The methanol produced in the Fischer-Tropsch reactor is passed with the reduced hydrogen syngas through a second Fischer-Tropsch reactor which is catalyzed to favor the production of ethanol. Also disclosed, without limitation, are a unique catalyst, a method for controlling the content of the syngas formed in the feedstock reformer, and a feedstock handling system.

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